

REMARKS

In the Office Action, the Examiner suggested amending the title to be more descriptive of the underlying claims. In addition, claims 27-30 were rejected under 35 U.S.C. § 112, first paragraph and claim 29 was rejected under 35 U.S.C. § 112, second paragraph. Finally, the Examiner remarked that U.S. Patent No. 5,244,654 ("the '654 patent") might be considered as potential prior art.

In view of the amendments made herein and the remarks that follow, Applicants most respectfully submit that the rejections are overcome and the application is now in condition for allowance.

Claim Amendment

Claim 27 has been amended to correct typographical errors. In addition, claim 27 has been amended to recite R¹ is an amine (-NH). Support for this amendment is found throughout the specification; for example, at paragraph [00033] where R¹ and R² are linked directly to each other and R¹ is disclosed to be, among others, an amine. Entry of the amendment and withdrawal of the § 112 paragraph rejections are respectfully requested.

Further, claim 29 has been amended to particularly point out and distinctly claim one embodiment of Applicants' invention. Support for this amendment is found throughout the specification, for example at paragraph [00062] of the specification. Reconsideration and withdrawal of the § 112, second paragraph, rejection of claim 29 are respectfully requested.

The '654 Patent

With respect to the prior art of record, the Examiner cites to the '654 patent as potential prior art. To advance prosecution Applicants use this opportunity to address this reference even though the reference is not formally cited in a substantive rejection.

The '654 patent generally alleges activating a polymer surface by contacting said surface with radio-frequency low pressure plasma medium. See col. 2, lines 24-33. It is further alleged that the treatment modifies the polymer surface "causing the formation of carboxyl groups and/or hydroxyl groups on the surface of the polymeric material." Col. 4, lines 37-40. Finally, at col. 5, lines 50-53, the reference discloses that the spacer group is added by reacting the amine group of the spacer with the functionalized polymeric surface. See col. 5, lines 50-53 and col. 5, lines 40-46. The free end of the amine-terminated spacer is then reacted with a bio-active agent such as heparin to form another covalent bond. Because these covalent bonds are formed in the presence of a dehydrating agent, the Examiner takes the position that the amide group ($\text{O}=\text{C}-\text{NH}$) is inherently formed and the moiety includes two amid linkages: one coupling the spacer to the polymer backbone and another coupling the spacer to the bio-active agent. See Office Action at pages 6-7.

Regardless of the veracity of the Examiner's inherency argument, Applicants most respectfully submit that the claimed invention is patentable over the '654 patent for at least the reason that the reference does not disclose nor suggest an amine linking the spacer to the polymer backbone. That is, the claimed embodiment of applicant's invention is directed to using a different linkage between the respective units (*i.e.*, an amine linkage between the polyurethane backbone and the spacer and an amid linkage between the spacer and the bio-active agent.) The

specification discloses at paragraphs [00055] to [00056] an embodiment where unsaturated carboxylic acid is substituted for saturated carboxylic acid. This embodiment "is an unsaturated polymer-spacer complex characterized by an amine linkage between the spacer and the polymer."

Applicants respectfully submit that the claimed invention is patentable over the '654 patent as the reference does not contemplate reacting a pre-polymer with a chain extender in the presence of an unsaturated carboxylic acid so as to form unsaturated carboxylic functionality. Consequently, the reference does not disclose nor suggest the claimed structure.

CONCLUSION

In view of the foregoing amendments and remarks, it is firmly believed that the subject pending claims are in condition for allowance, which action is earnestly solicited.

The Examiner is invited to contact the undersigned to discuss any matter relating to this application.

Respectfully submitted,
KENYON & KENYON

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By: Dianoosh Salehi
Dianoosh Salehi
Reg. No. 46,352

KENYON & KENYON
1500 K Street, N.W.
Washington, DC 20005
Telephone: (202) 220-4209
Fax: (202) 220-4201

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